

mental health AIDS

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Biopsychosocial Update

HIV Prevention News

About Women & Men

In a small study involving five couples, Pilcher et al. (2001) confirmed the widely held suspicion that HIV may be transmitted as early as seven days *before* an infected individual experiences the flu-like symptoms of primary HIV infection and before antibody testing can detect the virus. Such findings underscore the need for consistency in safer sexual practices to avoid HIV transmission and prompt research to explore ways of promoting and maintaining these practices.

From condom use diaries completed by 103 heterosexually-active young adults in Australia, de Visser and Smith (2001) discerned that condom use with regular partners was based largely on established behavior patterns, while use with casual partners was determined by interactions between the partners during the encounter rather than attitudes or beliefs held by the individuals involved. The authors suggest that "condom use with casual partners may be increased by furnishing young adults with skills and confidence for negotiating condom use. For young adults in regular relationships, we must ensure that routine patterns of condom use are appropriate for the levels of risk to which the partners are exposed" (p. 413).

Regarding risk levels, Dutch researchers (Buunk & Dijkstra, 2001) compared two sets of heterosexual men and women (39 at high risk for HIV, 39 at low risk) and found that the former, while fearful of infection and aware of their risky behavior, more often utilized rationalizations and attributions to justify unprotected sexual behavior than those at low risk. Since individuals at high risk for infection appear to be cognizant of

that risk, Buunk and Dijkstra encourage a shift from approaches designed to heighten risk awareness to interventions that challenge rationalizations and defensive attributions that undergird risky sexual behavior in combination with practical exercises to enhance facility with condoms and strengthen beliefs that an individual is capable of using them when necessary.

Turning to people living with HIV, Reilly and Woopp (2001) studied 360 men and women receiving HIV medical services and found that 34% of these individuals had engaged in at least one act of unprotected vaginal or anal intercourse over the preceding six months. As in other studies, high-risk sex was associated with lower income, a higher number of sexual partners, disliking condoms, lower likelihood of employing risk avoidance strategies, and use of drugs prior to sex; low self-esteem, depression and anxiety, and alcohol use were not associated with unsafe sex in this sample. Reilly and Woopp encourage clinicians to integrate HIV risk-reduction strategies that address behavioral skills and motivation when working with HIV-positive adults, but speculate that motivational approaches that tap into altruistic concerns and promote a sense of responsibility to the larger community, both individually and in group format, may be more effective for some than those that focus merely on self-interest.

Similarly, Buchacz et al. (2001) studied 145 racially-diverse, heterosexually-active, HIV-serodiscordant couples and found that nearly half (45%) reported inconsistent condom use over the preceding six-month period. In this sample, inconsistent condom use was associated with less education, unemployment, African-American ethnicity,

injecting drug use (IDU) (in couples with a younger HIV-positive partner), higher CD4 cell counts in the HIV-positive partner, an HIV-positive male partner having ever had sex with another man, and the couple practicing anal intercourse. [With regard to anal intercourse, it bears mentioning that Di Stefano et al. (2001) studied 26 men and women living with HIV and found that the rectal lining may contain a significant amount of HIV, even among individuals receiving antiretroviral treatment.]

Demmer (2001) surveyed 196 people (largely heterosexual African-Americans and Latinos) receiving community-based HIV services and found that, while worries about health and finances continued for many, these individuals generally reported a high quality of life. Interestingly, those reporting a lower quality of life were also more likely to see HIV as a less serious issue in light of treatment advances and to believe that safer sexual practices are less necessary. Clinicians are encouraged to assess quality of life among people living with HIV and its relationship to risk perceptions and potential transmission risks.

Case managers may also be in a fine position to gauge HIV risk. Mitchell and Linsk (2001) surveyed a convenience sample of 101 HIV case managers to assess the potential for integrating HIV prevention screening into ongoing case management activi-

In This Issue:

Biopsychosocial Update	
HIV Prevention News.....	1
HIV Assessment News.....	6
HIV Treatment News.....	6
Tool Boxes	
Resources.....	4
Working with HIV/AIDS:	
The Clinician's Job.....	8
A Note on Content.....	12

ties and believe training and execution could be enhanced by helping case managers to: 1) cultivate a "safe" space to promote openness and honesty about risk behaviors; 2) increase their comfort with frank discussion of risky behavior; and 3) address potential worries about role conflict for clients, who may fear that services will be withdrawn if they reveal risky behavior.

About Women

Fideli et al. (2001) monitored 1,022 serodiscordant heterosexual couples in Zambia at three-month intervals over a six-year period and found, in a comparison of 109 "transmitters" and 208 "nontransmitter" controls, that a high viral load was a stronger predictor of transmission risk between women and men than vice-versa. Even when blood levels of HIV have been suppressed to < 500 copies/mL, Kovacs et al. (2001) found that one-third of 311 heterosexual women living with HIV continue to have high levels of HIV in their genital secretions and risk transmission to newborn infants and sexual partners.

Why do some women engage in unsafe sex? Hillis, Anda, Felitti, and Marchbanks (2001) reviewed data from 5,060 women receiving services through a managed care organization and found that those subjected to adverse experiences during childhood (including emotional, physical or sexual abuse; domestic violence between parents; or substance abuse, mental illness, or criminal activity among household members) were more likely to initiate intercourse early, have multiple sexual partners, and/or perceive themselves at risk for HIV. Moreover, as the frequency of exposure to violence and the range of adverse experiences increased, so too did the association with

sexual risk behaviors later in life. According to the authors, "risky sexual behavior may represent their attempts to achieve intimate interpersonal connections. Having grown up in families unable to provide needed protection, such individuals may be unprepared to protect themselves and may underestimate the risks they take in their attempts to achieve intimacy" (p. 206).

On the subject of protection, Moore et al. (2001) interviewed 386 HIV-positive and 203 HIV-negative sexually active women on three occasions (baseline, six months, and 12 months) and found that HIV-positive women were more likely to consistently use condoms, while HIV-negative women were more likely to use condoms inconsistently or not at all. Among women living with HIV, 25% of those with HIV-positive partners reported consistent condom use, while 41% of those with partners of unknown or HIV-negative status reported consistency of use. In this latter group, inconsistency was associated with use of injecting drugs or crack cocaine. Clearly, many women appear to use condoms consistently when they or their partners are known to be HIV-positive, reinforcing the importance of women and their partners learning their HIV status as a risk-reduction intervention. On the other hand, the fact that condom use was not consistent in all serodiscordant relationships highlights the need to involve uninfected male partners in individual or couple's interventions or, at the very least, help women to understand the need for consistent condom use, to clarify their values regarding safer sex and partner protection, and to develop skills to negotiate condom use and to reduce or eliminate their use of substances.

Employing a sample of 120 urban women

(primarily women of color), Williams, Gardos, Ortiz-Torres, Tross, and Ehrhardt (2001) explored the process of safer sex negotiation with a male partner and reached several conclusions. According to these investigators, clinicians should: 1) identify a woman's current repertoire of negotiation strategies and evaluate their effectiveness; 2) help her to develop a range of effective strategies – both direct and indirect – for negotiating consistent condom use within sexual relationships; 3) support her changing strategies to match changes in the negotiation situation; and 4) teach her to defuse conflict that may emerge while negotiating, particularly with a steady partner.

Gielen et al. (2001) randomized 70 HIV-positive and 471 at-risk women with a primary male sex partner to either standard reproductive health services or enhanced services that included an individual, stage-tailored intervention delivered by peer counselors and found that the latter could promote movement along the stages of change (SOC) toward consistent condom use with a primary partner at six-month follow-up. More specifically, HIV-positive women who received the enhanced intervention were more likely to have progressed toward behavior change or to have maintained consistent condom use, and less likely to have remained in the precontemplation stage or to have reverted to unsafe behavior when compared to women receiving standard services. For at-risk women, the enhanced intervention was associated with being further along in the SOC model and less likely to have reverted to unsafe behavior than those receiving standard services. As the authors note, "[t]ailoring counseling messages by SOC uses resources efficiently, and delivery by peer counselors, themselves living with HIV may be a particularly acceptable means of promoting condom use among women ..." (p. 201).

Other approaches may also be of use. Gollub, French, Latka, Rogers, and Stein (2001) observed 292 female sexually-transmitted disease (STD) clinic attendees receiving one of three counseling approaches: 1) a "women's safer sex hierarchy of prevention methods" [female condom, male condom, diaphragm, cervical cap, and

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spermicides] ($n = 118$); 2) the male condom only ($n = 62$); and 3) the female condom only ($n = 112$). While unprotected sex decreased in all groups when assessed six months post-intervention, hierarchical counseling, when compared with single-method counseling, led to higher levels of self-reported protection during sex. Clinicians are encouraged to educate women about a wide range of physical and chemical barrier protection methods to reduce HIV/STD risk.

Cabral, Galavotti, Armstrong, Morrow, and Fogarty (2001) evaluated condom use among 312, largely African-American, at-risk women with a primary sexual partner and found that women who wanted to have a baby were (understandably) less likely to use condoms consistently, although women whose partners supported use of contraceptives used condoms more consistently than women whose partners were unsupportive. According to the authors, clinicians serving at-risk women should assess reproductive values and intentions when planning an HIV prevention intervention. In this way, women oriented toward becoming pregnant can be educated about the importance of HIV testing and condom use during non-fertile days in their cycle and linked with STD treatment, early prenatal care, and couples counseling. Conversely, women wanting to avoid childbearing can be instructed about the contraceptive and disease prevention benefits of condom use and helped to develop strategies to enhance partner collaboration and support for consistent condom use.

Strauss and Falkin (2001) studied 104 HIV-negative, drug-involved women at risk for infection and found that, in addition to having more social support, women who demonstrated greater consciousness and concern about their HIV risk (through more frequent HIV testing, greater comfort in discussing their partners' sexual activity with other partners, and talking to supportive others about HIV-related issues, including their own status) were more likely to disclose their HIV-negative status to their intimate partners. Since women capable of discussing safer sex as well as their own HIV status may be more likely to adopt and sustain safer sexual practices, Strauss and Falkin encourage clinicians to help HIV-negative

women learn to disclose their HIV status to intimate partners by encouraging HIV discussion – including status discussion – with supportive others and help them to increase their level of comfort in discussing sexual behavior more generally with their partners.

About Men Who Have Sex with Men

Deren et al. (2001) interviewed 144 men who have sex with men (MSM) who were IDUs and crack smokers and discovered a heterogeneous group with regard to sexual behavior. For example, 56% reported having sex with women as well during the preceding year and many engaged in sex trading (32% with men, 53% with women). While 31% identified themselves as behaviorally bisexual, only 17% presented themselves as such to the community. The authors suggest focusing on behavior rather than identity in carrying out sexual risk-reduction interventions with MSM IDUs.

Martin, Riopelle, Steckart, Geshke, and Lin (2001) compared 46 gay men living with HIV and participating in peer-led support groups with 20 HIV-positive gay men who did not and found that group participants reported less unprotected receptive anal intercourse than their non-group counterparts. Overall, however, knowledge of an undetectable viral load was associated with a greater frequency of unprotected anal intercourse (albeit with use of withdrawal prior to ejaculation), reflecting a limitation in how peer-led support groups might influence sexual risk-reduction among HIV-positive gay men.

Expanding on this theme, Huebner and Gerend (2001) surveyed 575 gay and bisexual men; of the more than 80% who had been tested, 20% were HIV-positive and 80% were HIV-negative. Among both positive and negative men, Huebner and Gerend found that the belief that highly active antiretroviral therapy (HAART) decreases the risk of HIV transmission was associated with reduced intentions to utilize condoms for receptive anal intercourse and greater likelihood of having engaged in such with a casual partner; HIV-positive men who believed in lower transmission risk were twice as likely as those who did not to engage in unprotected insertive anal intercourse. Interestingly, HIV-negative men

harboring this belief perceived themselves at greater risk for infection and the authors suggest that perceptions of reduced risk appear to *result from, rather than lead to*, risky sexual behavior (i.e., they emerge as an anxiety-reducing rationalization for past risky behavior). The authors conclude that "Transmission-Prevention beliefs appear to be central to understanding the HIV-related sexual risk behavior of gay and bisexual men" (p. 309) and that clinicians can help MSM to realistically evaluate whether the perceived protections afforded by HAART warrant less-than-consistent condom use.

Finally, Bingman, Marks, and Crepaz (2001) interviewed 71 sexually-active MSM living with HIV and found an association between unprotected anal sex with partners who were HIV-negative or of unknown status and blaming others for their infection; this association was particularly strong for men who believed they were *intentionally* infected by another man. Clinicians may, therefore, want to assess attributions about HIV infection in MSM and their association to current partner choices and sexual behaviors.

About Adolescents

Roye and Seals (2001) interviewed 39 young women of color who utilized hormonal contraceptives and found such use was, indeed, a barrier to condom use. Trusting that a partner is monogamous and perceiving condoms to be "irritating" were identified as additional barriers to condom use in this sample. Young women who were not in a steady relationship and those who feared pregnancy and infection were more likely to use condoms. Suggestions for increasing condom use among users of hormonal contraceptives include: 1) increasing ease of access to condoms; 2) wide dispersion of HIV prevention messages; 3) reinforcing the understanding that hormonal contraceptives do not protect against HIV; 4) highlighting the fact that current fidelity in a sexual partner is not equated with low risk and that communication regarding monogamy as well as regular HIV testing can facilitate decision-making about condom use; 5) promoting parent-teen communication about condoms; and 6) connecting with an HIV-positive peer, either face-to-face or through a video recording.

Tool Box

Resources

Books & Articles of Interest:

Altschuler, J., & Katz, A.D. (2001). Countertransference reactions toward older adults facing HIV and AIDS. *Clinical Gerontologist, 23*(1-2), 99-114.

Altschuler and Katz present a sentence completion exercise developed to identify and explore countertransference reactions related to working with older adults facing HIV.

Berger, B.E., Ferrans, C.E., & Lashley, F.R. (2001). Measuring stigma in people with HIV: Psychometric assessment of the HIV Stigma Scale. *Research in Nursing & Health, 24*(6), 518-529.

The authors introduce a 40-item instrument to measure perceived stigma in people living with HIV.

Dilorio, C., Dudley, W.N., Wang, D.T., Wasserman, J., Eichler, M., Belcher, L., & West-Edwards, C. (2001). Measurement of parenting self-efficacy and outcome expectancy related to discussions about sex. *Journal of Nursing Measurement, 9*(2), 135-149.

Dilorio and colleagues evaluate two scales designed for use in exploring factors related to sexual health discussions between parents and teens.

Hinkin, C.H., Castellon, S.A., Atkinson, J.H., &

Goodkin, K. (2001). Neuropsychiatric aspects of HIV infection among older adults. *Journal of Clinical Epidemiology, 54*(12, Suppl. 1), S44-S52.

The authors provide "an overview of the epidemiology and clinical manifestations of HIV-associated cognitive and psychiatric disorder across the age spectrum, with particular focus on what is known regarding the interaction of advancing age and HIV infection."

Lyon, M.E., Townsend-Akpan, C., & Thompson, A. (2001). Spirituality and end-of-life care for an adolescent with AIDS. *AIDS Patient Care & STDs, 15*(11), 555-560.

The authors utilize a case report to offer guidelines for assessing spiritual needs and intervening appropriately.

Mayers, A.M., & Svartberg, M. (2001). Existential loneliness: A review of the concept, its psychosocial precipitants and psychotherapeutic implications for HIV-infected women. *British Journal of Medical Psychology, 74*(4): 539-553.

Mayers and Svartberg advocate for the incorporation of an existential perspective on loneliness in therapeutic work with women who are living with HIV.

Palmer, R., & Bor, R. (2001). The challenges to intimacy and sexual relationships for gay men in HIV serodiscordant relationships: A pilot study. *Journal of Marital & Family Therapy, 27*(4), 419-431.

Palmer and Bor describe changes in sexual behavior, emotional intimacy, and long-term planning among 10 HIV serodiscordant gay couples. Their findings may be useful to clinicians in recognizing stress factors within these relationships and fashioning interventions that serve the needs of both partners.

Pequegnat, W., & Szapocznik, J. (Eds.). (2000). *Working with families in the era of HIV/AIDS*. Thousand Oaks, CA: Sage.

Grounded in the broadest definition of "family" (one that includes single parents, foster families, extended kin networks, and gay friendship networks), this volume details cutting-edge, family-focused HIV prevention and care interventions.

Peterson, J.L., & DiClemente, R.J. (Eds.). (2000). *The handbook of HIV prevention*. New York: Kluwer Academic/Plenum.

Peterson and DiClemente present a comprehensive overview of HIV prevention theories as well as interventions researched with a range of at-risk populations in both developed and developing countries.

Petry, N.M. (2001). Reliability of drug users' self-reported HIV risk behaviors using a brief, 11-item scale. *Substance Use & Misuse, 36*(12), 1731-1747.

Petry reports on use of the HIV Risk Behavior Scale to assess sexual and injection risk among substance users.

Interestingly, the *mere presence* of a supportive parent appears to have an impact on teen risk behavior. Crosby et al. (2001) surveyed 522 sexually-active, African-American females between the ages of 14 and 18 and found that living with mother in a family environment perceived to be supportive – *independent* of communication about sexual risk and parental monitoring – was associated with lower levels of risky sexual behavior, suggesting a potential benefit to family-level interventions that enhance perceived family support in an effort to reduce HIV risk behaviors in young African-American women.

In another study about home environment, Moon, Binson, Page-Shafer, and Diaz (2001) interviewed 203 street youth and discerned a relationship between high-risk behavior and the individual's perception of his or her ability to return home. Based on these associations, clinicians may be able to iden-

tify street youth at the highest risk for contracting HIV by asking, "Could you go back home today if you wanted to do so?"

Shrier, Harris, Sternberg, and Beardslee (2001) reviewed data from a national sample of 6,583 sexually-active 7th to 12th graders and conclude that teens with depressive symptoms are at risk for not using condoms and for STDs. Clinicians working with sexually-active teens should, therefore, screen for and treat depressive symptoms to reduce sexual risk behavior and to reduce the potential for contracting STDs, including HIV.

Finally, Santelli, Robin, Brener, and Lowry (2001) observe that prevention strategies to address condom use and multiple partners in teens and young adults who use (or have ever used) alcohol and other drugs (AOD) will need to be distinct and different, since the use of substances appears to influence these behaviors in different ways. They

base this observation on an analysis of data from 7,441 unmarried people between the ages of 14 and 22 showing that not using condoms was associated with the number of different substances ever used as well as with the age at which alcohol use was initiated. Interestingly, neither recent substance use nor use at last intercourse was associated with recent condom use, although these factors were associated with having multiple sexual partners, as was the number of substances ever used by female respondents.

About Substance Users

While 54% of 796 sexually-active teens receiving drug treatment reported reductions in HIV sexual risk behavior (provided they stayed in treatment for at least one month), no improvement was reported among conduct-disordered teens with an abuse history, unmet physical and emotional needs, and low commitment to school, according to

Remien, R.H., & Rabkin, J.G. (2001). Psychological aspects of living with HIV disease: A primary care perspective. *Western Journal of Medicine*, 175(5), 332-335.

Remien and Rabkin "summarize the psychological issues and challenges of living with HIV infection, the psychiatric conditions that are commonly seen, ways in which primary care physicians can help address these issues, and recommendations for when they should consider involving mental health specialists and other support services."

Smith, M.D. (2001). HIV risk in adolescents with severe mental illness: Literature review. *Journal of Adolescent Health*, 29(5), 320-329. Smith summarizes research on HIV risk – linked to a host of family, peer, sociocultural, and economic factors – in adolescents living with severe mental illness.

Treisman, G.J., Angelino, A.F., & Hutton, H.E. (2001). Psychiatric issues in the management of patients with HIV infection. *Journal of the American Medical Association*, 286(22), 2857-2864.

Through a complex case study, the authors present a framework for providing a comprehensive, collaborative, multidisciplinary approach to the diagnosis and treatment of people living with HIV who present for services with psychiatric disorder(s).

--Compiled by Abraham Feingold, Psy.D.

Joshi, Hser, Grella, and Houlton (2001). Conduct-disordered teens who perceived treatment to be effective were more likely to report improvement, except for those scoring high in hostility or low in self-perception. Among teens without a conduct disorder, receiving mental health services was linked to reductions in sexual risk. According to the authors, "the effect of drug treatment on HIV risk reduction behavior can be increased when attention is focused on adolescents' pretreatment risk factors, service needs, [in-treatment] responses, and key personality characteristics" (p. 657).

Within a sample of 332 crack cocaine smokers not engaged in treatment, Timpson et al. (2001) discerned differences between men and women in their approach to the SOC leading to consistent condom use, suggesting that behavior change related to condom use may be slower and more complex for women than for men.

In another study by this same group (Bowen, Williams, McCoy, & McCoy, 2001), condom use intentions were assessed among 586 heterosexual crack cocaine smokers not engaged in treatment. Among these men and women, the intention to use condoms with a primary sexual partner was associated with the belief that peers also used condoms with their partners and expectations of a positive outcome to condom use (specifically, beliefs related to the impact of condom use on romance and sexual pleasure). Behavioral processes related to beliefs that support condom use intentions included counter-conditioning (i.e., having the ability to engage in non-penetrative sexual activity when condoms are unavailable), stimulus control and reinforcement (i.e., generating reminders to cue condom use and gathering rewards for such use), and self-liberation (i.e., believing that condom use is socially accepted and under the individual's control). In practical terms, the authors conclude that:

... a group intervention in which drug users are given a means to remind themselves to use condoms and reward themselves for condom use within specific romantic contexts should improve intention to use condoms and increase condom use. During the intervention, participants might be given an opportunity to develop romantic plans to use condoms with their primary partners. Groups discussion about pleasurable condom use with primary partners would provide reminders to try a romantic activity with condoms. The group would also provide a safe forum in which the success or failure of the condom use plan could be discussed. Discussion of condom use between partners should focus on successful condom use and support efforts to reduce barriers to condom use. Ideally, a number of sessions would be developed to provide repeated encounters with peers and chances to develop and refine plans for romantic condom use. (p. 591)

Rees, Saitz, Horton, and Samet (2001) studied 354 individuals receiving inpatient detox services (including 105 recent IDUs) and found no association between alcohol con-

sumption and HIV *drug-injecting* risk behaviors in this sample. They did, however, find an association between alcohol consumption and HIV *sexual* risk behaviors among female drug users and conclude that addressing alcohol problems among drug users (particularly women) may reduce risky sexual behaviors in this population.

In another study involving substance users in treatment, McMahon, Malow, & Penedo (2001) assessed 291 HIV-negative, AOD-abusing male veterans in inpatient drug treatment with the Minnesota Multiphasic Personality Inventory 2 (MMPI-2) and divided them into three personality subgroups: a "high pathology" cluster (with mean elevations of greater than 65 on most basic clinical scales), a "subclinical" cluster (in which only Scale 4 [psychopathic deviance] approached a clinical elevation), and a "mild pathology" cluster (with a profile shape similar to the "high pathology" cluster, but without clinical elevations). With regard to HIV risk, the clusters revealed few differences in their attitudes, beliefs and expectancies related to HIV risk behaviors, although the "high pathology" cluster reported less confidence in their ability to practice safer sex than the "subclinical" cluster. According to the authors, polysubstance abusers with more chronic and severe mental health problems would likely benefit from interventions that address poor judgment and limitations in problem-solving that may contribute to HIV risk behavior. Additionally, the authors stress the need for optimal sequencing of HIV prevention education and psychiatric interventions, since the latter are key to maximizing the benefits of the former.

About the Severely Mentally Ill

McKinnon, Cournos, and Herman (2001) interviewed 195 people living with severe mental illness (SMI) and found that 100 (51%) had been sexually active in the preceding six months. The likelihood of sexual activity decreased with age and cognitive symptoms (disorientation, conceptual disorganization, poor attention, difficulty with abstract thinking, mannerisms/posturing) and increased with excited symptoms (hostility, tension, excitement, poor impulse control). Among those sexually active, 49% had a partner with known HIV risk factors, 34%

had used AOD, 28% had traded sex, and 59% did not use condoms. Cognitive symptoms were also associated with trading sex, while the likelihood of a STD history increased with depressed/anxious symptoms (anxiety, preoccupation, depression, guilt feelings, somatic concerns) as well as with use of AOD. McKinnon and colleagues recommend that people living with SMI be taught concrete skills to manage those psychiatric states associated with HIV risk behaviors and that their use of AOD be assessed to see if intervention is needed.

Carey, Carey, Maisto, Gordon, and Venable (2001) remind us of the importance of ongoing HIV risk assessment among all people receiving mental health services, based on their finding that 69% of 1,558 psychiatric outpatients had been sexually active in the preceding year and 23% had engaged in HIV risk behaviors. In this sample, sexual risk occurred more often among younger clients with less severe disorders who were single as well as clients who used or abused substances.

HIV Assessment News

HIV Counseling & Testing

Brown, O'Grady, Farrell, Flechner, and Nurco (2001) compared individuals in drug treatment with regard to their frequency of HIV testing (43 individuals who tested for HIV on five or more occasions vs. 56 individuals who tested for HIV no more than twice) and found frequency of testing to be associated with felt vulnerability to HIV and *not* associated with risk behaviors, psychological functioning, or family involvement. The disassociation of behavior and risk highlights the challenge of personalizing risk for purposes of increasing the monitoring of health status among drug users.

Riess, Kim, and Downing (2001) interviewed 66 drug users and found that women were motivated to pursue HIV testing based on their perception that testing offers benefits to either an unborn child during pregnancy or to their family more generally, while men were motivated to pursue testing based on their perception of personal gain, including financial remuneration or relief from anxiety related to learning their HIV status. The authors suggest that clinicians play up the

importance of family concerns when discussing testing with female drug users and increasing control over one's life when discussing testing with male drug users.

Psychiatric Assessment

Zinkernagel et al. (2001) screened 397 people living with HIV in Switzerland for anxiety, depression, and health-related quality of life and found that scores were generally worse (particularly among IDUs) than those among the Swiss more generally – despite the comparative health of this HIV cohort. Better scores (indicating less psychological distress and higher quality of life) were associated with female gender, higher education, being employed, lower viral load, and shorter duration of HIV disease. The authors conclude that HIV infection, even when well-controlled, is associated with elevated levels of anxiety and depression. Mental health assessment is therefore critical, regardless of HIV disease parameters.

Several recent studies have focused specifically on depressive symptomatology:

o Johnson et al. (2001) followed 103 men living with HIV over a six-month period and conclude that individuals lacking in social support may experience hopelessness and be at increased risk for the onset of depressive symptoms.

o According to Jones, Beach, Forehand, & the Family Health Project Research Group (2001), who studied 73 African-American single mothers living with HIV, depressive symptoms are associated with an increase in physical complaints 12 to 14 months later. For this reason, they encourage assessment of and treatment for depressive symptoms, not only to enhance quality of life among HIV-infected, African-American single mothers, but to address general physical distress as well.

o Similarly, Eller (2001) found work status, depression, and fatigue predictive of quality of life in 81 adults living with HIV. She urges clinicians to assess work status, depression, and fatigue on a routine basis and manage the latter two to increase quality of life for persons living with HIV.

Parent-Child Assessment

Rotheram-Borus, Stein, and Lin (2001) followed 211 adolescent children of HIV-positive parents over a two-year period and found that those who lost a parent to death reported greater emotional distress and problems behaviors (i.e., "acting out") two years later than those who had not experienced such a death. Teens who had been randomized, along with their parent, into a coping skills intervention demonstrated benefits two years later (irrespective of parental death), including fewer problem behaviors, fewer sexual partners, and better adjustment when their parents reported less emotional distress and less severe HIV-related symptoms at baseline. Clearly, clinicians must monitor the psychological and behavioral impact of bereavement and the stress of chronic parental illness on children.

HIV Treatment News

Medical Care

Antiretrovirals have been shown to prolong life for adults living with HIV; the same can now be said for children. After four years of following 1,028 children and teens living with HIV, Gortmaker et al. (2001) conclude that the use of protease inhibitors (PIs) in concert with other antiretrovirals reduces the risk of dying from AIDS by two-thirds (from 5.3% in 1996 to 0.7% in 1999).

And yet, there are limits to the efficacy of HAART. Richman et al. (2001) studied 1,647 blood samples drawn from a nationally representative sample of more than 2,000 adults receiving HIV medical care and found that 64% of these individuals experienced rising viral loads over time, reflecting a reduction in benefit from HAART over a two- to three-year period. Richman and colleagues also found that 78% of those with detectable virus carried at least one drug-resistant strain of HIV, particularly those with *greater* access to care (i.e., educated and privately insured gay white men); overall, 49% of those studied carried a drug-resistant strain of the virus, including 20% of newly-infected individuals entering care.

Optimizing treatment is obviously essential, but how early can a failing medication regimen be identified? Polis et al. (2001) analyzed treatment histories from 124 adults

and children living with HIV and found that they could distinguish between those who would demonstrate a good response to medication at three months and those who would not based on a viral load measurement taken six days after initiating antiretrovirals (rather than the customary four to eight weeks). Such testing does not take long-term adherence to medications into account, but might allow for a much earlier assessment of drug efficacy among adherent individuals.

Drug efficacy is only one concern when it comes to continuing medications; side effects are another. In a prospective cohort study involving 1,160 people receiving antiretrovirals in Switzerland, Fellay et al. (2001) found that: 47% of participants experienced adverse, treatment-related side effects; 9% of these effects were rated as "serious" or "severe"; and a greater likelihood of side effects was associated with a higher number of medications taken in combination.

Given the potential for side effects, researchers continue to explore the best time to begin treatment. Of note are two studies, one conducted in Europe (Phillips et al., 2001) and the other in Canada (Hogg et al., 2001), suggesting that *some* individuals may safely delay the initiation of antiretrovirals until their CD4 cell count falls to not < 200 cells/mm³ (under current guidelines, HAART is recommended when CD4 cell counts fall below 350 cells/mm³). In a related study, Sterling, Chaisson, and Moore (2001) compared 530 adults receiving HAART to 484 who did not for an average of 22 months and conclude that guidelines for initiating HAART among asymptomatic individuals should place greater emphasis on CD4 cell counts than on viral load, since the former was more predictive of disease progression (again utilizing a CD4 cell count of 200 cells/mm³ at the start of treatment as the line of demarcation) than the latter.

Other researchers continue to assess structured treatment interruptions (STI) to reduce the amount of medication taken. Over a period of up to 68 weeks, Dybul et al. (2001) followed 10 individuals on daily HAART with low viral loads and high CD4 counts and had them begin cycling their HAART regi-

men in a seven days on/seven days off pattern. Virus levels not only remained suppressed on this short-cycle intermittent treatment schedule, but *cholesterol levels dropped by 22% on average, and triglyceride levels by 51%*. Should these findings bear out in larger studies, the toxicity of these medications might be lowered and the cost of treatment could be cut in half for many people living with HIV. Of course, these findings are quite preliminary and will require additional investigation before influencing treatment recommendations.

Another line of research focuses on the development of new medications with fewer side effects. In this regard, the U.S. Food and Drug Administration (2001) has approved the first *nucleotide* analogue, tenofovir (Viread™), for HIV treatment. Nucleotides block HIV replication in a manner similar to *nucleoside* reverse transcriptase inhibitors (NRTIs) like zidovudine (AZT or Retrovir®). While approval was based on studies involving people previously treated with antiretrovirals, tenofovir may be used with *all* individuals living with HIV, regardless of treatment history. The medication is taken once daily with food and in combination with other antiretrovirals. The most common side effects are mild to moderate gastrointestinal problems.

An interesting side note: A laboratory study by Gekker, Lokensgard, and Peterson (2001) revealed that naltrexone (Revia®), a non-selective opioid receptor used in the treatment of alcohol or opiate dependence, not only does not appear to interfere with the action of antiretrovirals, but may *enhance* their activity.

Psychiatric/Psychological/ Psychosocial/Spiritual Care Neuropsychiatric Impairment

Based on a 45-month, prospective study involving 28 individuals taking HAART, Italian investigators (Tozzi et al., 2001) conclude that, while many people with HIV-associated neurocognitive impairment experience sustained improvement after 15 months of treatment, ongoing HIV-related neurological damage appears to occur even while taking HAART, as reflected in persistent neurocognitive difficulties in nearly 44%

of individuals with baseline neurocognitive impairment in their study cohort.

York, Franks, Henry, and Hamilton (2001) assessed verbal working memory in 18 HIV-negative, 16 HIV-positive but asymptomatic, and 20 HIV-positive and symptomatic individuals and found subtle verbal working memory deficits *even during the early stages of HIV infection*. York and colleagues observe that mild memory deficits may interfere with the performance of common tasks (e.g., counting change, reading) and that more pronounced deficits may impair complex decision-making. They conclude that, to help maintain as high a cognitive performance level as possible throughout the course of HIV, individuals may benefit from the introduction of compensatory memory strategies and rehabilitative counseling earlier in the disease process.

Alternative Medicine

When garlic supplements (a "natural" cholesterol fighter sometimes used by people receiving HAART) were taken in combination with saquinavir (Fortovase™) by 10 volunteers over a three-week period, Piscitelli, Burstein, Welden, Gallicano, and Falloon (2002) found that blood concentrations of saquinavir dropped by approximately 50%; even after a 10-day "washout" period, during which time no garlic supplements were taken, blood levels of saquinavir remained 35% below baseline. While it is unclear how garlic supplements might affect complex antiretroviral regimens, researchers recommend that individuals "exercise caution" when mixing garlic supplements with saquinavir, particularly when the latter is used as their only PI.

Adherence to Treatment

Katz et al. (2001) followed a nationally representative sample of 2,437 adults receiving HIV medical care over a six-month period and found that those with case managers had fewer unmet needs for supportive services (i.e., income assistance, health insurance, home health care, and emotional counseling) and were also more likely to utilize antiretrovirals. The authors speculate that case managers may assist clients in overcoming fears about medications and help them adhere to their regimens.

Similarly, Altice, Mostashari, and Friedland (2001) interviewed 205 men and women, primarily IDUs, receiving HIV services in a correctional setting and found that acceptance of antiretroviral therapy was associated with trust in health care providers and trust in the HIV medications they prescribe. Decreased adherence was associated with side effects, social isolation, and the complexity of the prescribed medication regimen. Clearly, a trusting relationship with providers is key to accepting antiretrovirals, while characteristics of those medications and social isolation potentially affect adherence in socially marginalized populations of people living with HIV.

With regard to regimen complexity, Stone et al. (2001) surveyed 289 women taking antiretrovirals and found that the less complex the medication regimen (i.e., the simpler the dosing instructions and the fewer food-dosing restrictions), the more likely that a woman will report adherence to that regimen. More specifically, women taking medications no more than twice daily and with no food-dosing restrictions and who correctly understood their regimen dosing instructions reported that they were less likely to have missed medication doses over the preceding three days than those prescribed more complex regimens. Adherence may, therefore, be improved when antiretroviral regimens are simplified.

Unfortunately, improving nonadherent behavior across regimens is far from simple. Walsh, Horne, Dalton, Burgess, and Gazzard (2001) surveyed 178 HAART recipients and found a median self-reported adherence rate of 95%. Occasional non-adherence was linked to eating at the wrong time (38.2%), sleeping through a dose (36.3%), forgetting (35.0%), and being with other people at dosing time (30.5%). While these individuals gave an average of 3.2 reasons for occasionally missing a medication dose, 20% gave *six or more* reasons. Those with the lowest reported adherence gave the greatest number of reasons for nonadherence and reported that these reasons affected them more often. Given the complexity of nonadherent behavior, Walsh and colleagues caution against targeting a single reason for nonadherence and instead

suggest a more sophisticated, multifaceted approach to a broad range of issues that promote nonadherence.

When assessing adherence, several points emerge from recent literature:

o Gross, Bilker, Friedman, and Strom (2001) followed 41 individuals initiating antiretroviral treatment over a four-month period and found that adherence was greater among those who achieved an undetectable viral load (< 50 copies/mL) over that period, although adherence did not differ over the *first* month between those who did and those who did not achieve an undetectable viral load. Gross and colleagues urge clinicians to closely assess adherence, particularly after the first month of antiretroviral treatment.

o Wilson, Tchetgen, and Spiegelman (2001) queried a diverse sample of 454 antiretroviral users regarding adherence to *each* of their antiretroviral medications over the preceding week and found that individuals generally missed or were off-schedule at *certain dosing times* rather than with *specific medications*. Since adherence to one antiretroviral seems to predict adherence to other antiretrovirals, they encourage clinicians to look into problematic dosing times when assessing medication adherence.

o French researchers (Duran et al., 2001) followed 277 HAART recipients who were adherent to their medication regimen at four months and found that 76% experienced at least one lipodystrophy-related symptom and 30% did not maintain adherence at 20 months. These researchers observe that factors that challenge initial adherence may differ from those that challenge maintenance of medication-taking behavior and advise clinicians to remain alert to early signs of lipodystrophy and address its potential impact on medication adherence.

Safren et al. (2001) compared two minimal strategies designed to increase adherence to HIV medication regimens. In a program called "Life-Steps," a manualized, single-session intervention protocol incorporating cognitive-behavioral, motivational interviewing, and problem-solving techniques, clients

Tool Box

Working with HIV/AIDS: The Clinician's Job

As people living with HIV and AIDS experience sustained improvements in health due to advances in medical treatment, many are maintaining their employment while others are contemplating or engaged in a return to work.

The desire to work following diagnosis with a stigmatized medical condition reflects the importance of work in the lives of these individuals, according to McReynolds (2001). Her interviews with seven HIV-positive adult men and women highlight the fact that work: 1) provides access to affordable health insurance and medical care; 2) offers a distraction from health-related concerns; 3) allows individuals to contribute to society; and 4) serves as a measure of continuing health and hope for the future.

On the other side of the age spectrum, Lightfoot and Healy (2001) examined career exploration and planning among 115 youth living with HIV and found greater certainty regarding occupational choice and career planning were each associated with less emotional distress and greater use of positive coping. While causal relationships could not be established through this study, Lightfoot and Healy, nonetheless, encourage clinicians to engage youth living with HIV in identifying and initiating career-oriented education in an effort to build or reaffirm hope for the future and to acquire the skills needed for securing employment.

How Clinicians Can Help

Clinicians can play a central role in assisting clients to plan for the professional and emotional challenges of living and working with a chronic condition requiring ongoing medical management.

For individuals who enjoy stable health and plan to continue their current employment, clinicians can assist in decision-making about

were asked to review various components of appropriate medication-taking. This program was compared with basic medication self-monitoring that involved an adherence questionnaire and a daily pill diary. At baseline, adherence was associated with satisfaction with social support, belief in one's ability to maintain adherence, and fewer punishment beliefs about HIV, although depressed mood was most predic-

HIV status disclosure to supervisors and co-workers [see below] and, if the client opts for disclosure, in identifying reasonable workplace accommodations that might allow him or her to manage disease symptoms that are present or might emerge and to continue in desired employment settings (or to make the best of employment situations that afford continuing insurance coverage) (McReynolds, 2001).

While the prospect of returning to work introduces a variety of practical concerns as well, it ushers in a range of psychological issues that must also be addressed. According to Bettinger (1999), clinicians can help by engaging clients in an exploration of the historic meaning of work to them as well as the full complement of feelings that accompany thoughts of reentering the workforce. Once the complex relationship between the person and his or her work history is reasonably well understood, the clinician can begin exploration of intrapsychic and systemic ramifications of and potential impediments to resuming employment (e.g., letting go of what had become a familiar identity and lifestyle, both by the client and his or her loved ones).

Once the decision to resume employment is made, the reentry process can be fraught with a host of challenges (professional, financial, and emotional) that must be addressed to facilitate job acquisition and performance. According to Brooks and Klosinski (1999), who conducted three focus groups involving 30 HIV-positive men preparing to rejoin the ranks of the employed (including one group of monolingual Spanish speakers), concerns extend not only to deciding about HIV status disclosure and requesting workplace accommodations to address continuing medical needs, but also to the more practical issues that arise when an individual has experienced an illness-related disruption to his or her career path and is reentering the job market following what may have been a lengthy absence, not to mention potential loss of or changes in medical benefits when employment is resumed. Individuals contemplating a return to work may require: vocational assessment; assistance with job-seeking skills,

tive of poor adherence. A total of 56 clients with less-than-perfect adherence were randomized to one of the two adherence strategies; after 12 weeks, *both* strategies improved adherence to more than 90%, although the "Life-Steps" approach resulted in a more rapid increase in adherence.

Finally, in a qualitative follow-up to an earlier quantitative study, Gold and Ridge

including resume writing and interviewing; benefits counseling; and HIV/AIDS workplace disclosure and employment discrimination information as codified in the Americans with Disabilities Act (ADA) of 1990 (Brooks & Klosinski, 1999; Fesko, 2001a; McReynolds, 2001).

The Question of Disclosure

A major issue for people living with HIV, whether they are maintaining or seeking employment, is the question of disclosure. In an exploratory study utilizing a sample of convenience, Fesko (2001b) interviewed 18 people living with HIV who continued working after their diagnosis and studied their decisions regarding health status disclosure. She identified six factors that influenced disclosure decisions: 1) the progression of illness and current state of health; 2) the individual's own acceptance of his or her HIV status; 3) potential risks for discrimination or hostility in the workplace; 4) the individual's ability to deal with these potential negative consequences; 5) issues related to the individual's sexual orientation (i.e., "coming out" through HIV disclosure; expecting – and potentially being denied – support from gay coworkers and supervisors); and 6) the psychological and practical consequences of nondisclosure.

According to Fesko, "[t]he most frequently cited reasons for disclosing HIV status were to explain choices they were making as they interviewed for a job and concerns about their job performance and the need for accommodations. For individuals who disclosed their HIV status to selective members of the workplace or disclosed to no one, the primary reasons given were preference for privacy, nature of the work environment, and fear of possible consequences" (p. 235). And yet, those who disclosed generally reported feeling more relaxed and relieved that they no longer had to keep a secret. In addition, they were largely able to receive support from their supervisors and coworkers and to ask for accommodations in the workplace.

Clinicians can assist clients in weighing the risks and benefits of disclosure by walking them through these six factors and identifying any

(2001) interviewed 20 Australian gay men living with HIV regarding their reasons for *not* initiating antiretrovirals; these included: fear of side effects; fear of damaging bodily organs; the inconvenience of complex treatment regimens; the sense that such demands would reduce their morale; and the belief that treatment is unnecessary in the absence of symptoms. Nevertheless, these men were engaged in all other aspects of

additional factors relevant to their personal situations. For individuals who choose to disclose, Fesko (2001a) outlines a number of steps clinicians may follow in developing a disclosure strategy. These include: 1) exploring the client's style and comfort level in sharing personal information and helping that individual to decide whether to disclose selectively or more publicly; 2) developing a disclosure script – emphasizing positive contributions rather than limitations related to illness and avoiding the use of medical jargon – and role playing to increase the client's comfort in delivery; 3) deciding how confidentiality should be managed and discussed with supervisors; 4) identifying what behaviors on the part of supervisors and coworkers would feel supportive (e.g., open discussion about HIV and its treatment; discussion only when initiated by client) and supporting the client's efforts to indicate this preference in the workplace; and 5) anticipating the anxieties of supervisors and coworkers and preparing responses to address these concerns.

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HIV medical care, differing with their providers only on the question of if and when to initiate antiretrovirals. Gold and Ridge observe that these men tended to focus on aspects of immediate experience, rejecting the biomedical model's reliance on "abstract" notions of statistical probabilities and the longer-term consequences of decisions made. Since nearly half of these individuals report "unreasonable pressure" to ini-

tiate antiretrovirals, the authors caution providers to approach this style of reasoning with respect and consideration and to encourage such clients to clarify – for themselves – the advantages and disadvantages of antiretrovirals and to evaluate each argument carefully. Such an approach heightens, rather than supplants, the client's own sense of agency in the treatment process and may promote more positive outcomes than a traditionally prescriptive approach.

Substance Use & Abuse

Knowlton et al. (2001) followed 503 low-income IDUs (37% were HIV-positive) over a one-year period and found depressive symptoms to be positively associated with declining physical health and negatively associated with discontinuing drug use. Such findings suggest that preventive medical care and drug treatment may help to reduce depressive symptoms among IDUs.

Serostatus Disclosure

Murphy, Steers, and Dello-Stritto (2001) studied 135 mothers living with HIV and their uninfected young children and found that 30% of the mothers disclosed their HIV status to their children. Compared to non-disclosing families, disclosure was associated with preexisting higher levels of social support for disclosing mothers and lower levels of both aggressiveness and low self-esteem in children after disclosure. While these results are preliminary, it would appear that disclosure of maternal HIV status does not appear to be associated with a negative impact on young children.

Stress Management

Cole et al. (2001) followed 13 antiretroviral-naive, HIV-positive men through their first three to 11 months of HAART treatment and found that elevated stress levels in these individuals appear to facilitate viral replication, undermining the effectiveness of the medications. The authors note that stress reduction techniques have had mixed results with HIV-positive individuals and have begun exploring the use of beta-blockers to lower stress in people living with HIV.

Pain Management

Schiff, Holtz, Peterson, and Rakusan (2001) evaluated a pain management intervention

with HIV-infected children undergoing routine venipuncture. The multi-component intervention included cognitive behavioral strategies (preparation, relaxation, distraction, reinforcement, parent involvement) and EMLA (eutectic mixture of local anesthetics) cream. Schiff and colleagues found that, with repeated exposure, a multi-component pain management intervention appeared to reduce pain, behavioral distress, and parental anxiety associated with venipuncture for children living with HIV.

Care for Caregivers

In an exploratory study, Poindexter (2001) interviewed seven caregivers of people living with HIV who were themselves over the age of 50 and found these individuals to be experiencing fluctuations in and interactions between the benefits and detriments engendered by the caregiving relationship itself and to also be confronting the larger societal context of HIV. While it is critical to include older caregivers in family assessment and service planning, Poindexter urges clinicians to affirm the resilience, resources, and accomplishments of older caregivers and to support them in the caregiving process to promote its continuation.

Coping Strategies

There are two major theoretical models of optimism: *explanatory style* optimism, which attributes negative events to external factors and relegates them to particular times or circumstances, and *dispositional* optimism, characterized by a general expectation of positive outcomes. Tomakowsky, Lumley, Markowitz, and Frank (2001) studied 87 men living with HIV cross-sectionally and a subset ($n = 47$) prospectively for two years and found both types of optimism to be associated with better self-reported health in the cross-sectional component of the study. Interestingly, explanatory style optimism was associated with a *lower* CD4 cell count – a clinical marker of disease progression – both cross-sectionally and prospectively, while dispositional optimism was unrelated to immune status. In discussing this unexpected finding, the authors point to the unique, persistent, and uncontrollable stressors of HIV disease (e.g., bereavement concurrent with personal illness, complex medication regimens and disturbing side

effects) and observe that while “optimism may be adaptive under ordinary circumstances, or for the population at large, or for certain health problems, an optimistic explanatory style may operate differently in HIV infected populations” (p. 585).

Bova (2001) studied 101 racially and ethnically diverse women living with HIV and found that it was the *appraisal* of illness events that influenced both the experience of symptoms as well as longer-term adjustment to chronic illness associated with HIV disease. Moreover, supportive others appear capable of influencing illness appraisal. Taken together, Bova's findings suggest that interventions designed to reframe negative appraisal of illness events by drawing in supportive others (through, for example, a positive coping, skills-building intervention for HIV-infected women and their supporters) have the potential to affect adjustment to chronic illness among these women.

Smith et al. (2001) evaluated 82 HIV-positive and 122 HIV-negative African-American new mothers and found these groups to be fairly similar in their psychosocial functioning, psychosocial distress, the quality of their close relationships, and their access to and satisfaction with social support. When compared with their HIV-negative counterparts, however, new mother who were living with HIV perceived themselves to have less control over their current health and sexual behavior (although they were more likely to use sexual protection) and to make greater use of both avoidant and support coping strategies. Smith and colleagues conclude from these findings that interventions directed to African-American new mothers living with HIV “should target perceived control, social support, and support coping as well as avoidant coping in such a way as to increase women's more effective utilization of their support systems” (p. 229).

Likewise, Tangenberg (2001) conducted focus groups with 40 mothers living with HIV and found that spiritual beliefs offered strength and support in coping with HIV, drug addiction, and everyday difficulties. Clinicians are urged to tap into belief systems and natural support networks that reinforce positive coping in HIV-positive women.

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Tool Box

A Note About Content

This publication has been developed to help the frontline provider of HIV-related mental health services, allied professionals, and consumers stay up-to-date on research-based developments in HIV care. The contents for the "Biopsychosocial Update" are drawn from a variety of sources including, but not limited to: the *CDC HIV/STD/TB Prevention News Update* (<http://www.cdcnpin.org/news/prevnews.htm>); the *Kaiser Daily HIV/AIDS Report* (<http://report.kff.org/hiv/aids/>); and periodic literature reviews e-mailed by researcher Robert Malow, Ph.D. at the University of Miami. Other sources of information are identified when appropriate.

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It is presumed that readers have at least a fundamental understanding of medical, psychosocial, and neuropsychiatric considerations for assessing and intervening with people who are living with HIV/AIDS and their families. For additional background information, the following resources may be of assistance:

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